REMARKS

Claims 8-13, 15-19, 21, and 24-35 are presented for further examination.

In the final Office Action mailed January 11, 2008, the Examiner finally rejected claims 8-13, 19, and 21 under 35 U.S.C. § 103(a) as obvious over Sparks et al. (5,719,069) in view of Sparks (5,531,121) and further in view of newly-cited U.S. Patent No. 5,393,375 ("MacDonald"). Claims 14-18 and 22-35 were rejected as obvious over Sparks et al. in view of Mirza et al. (5,883,420).

Applicants respectfully disagree with the bases for the rejections and request reconsideration and further examination of the claims.

The Examiner relies upon the additional MacDonald patent in combination with the two Sparks patents to assert it would be obvious to form the claimed structure on a monocrystalline substrate. In making this rejection, the Examiner relies upon an intermediate step in the primary reference, Sparks et al., showing a structure that does not have all of the claimed features and for which the Examiner imports these missing features from two other patents.

Initially applicants note that one of ordinary skill would not be motivated to stop the process of Sparks et al. in order to add the missing elements from different structures using different processes. For example, in order to create a single monocrystalline substrate in Sparks et al., one would have to remove the highly N-doped layers (see Figures 10a, 10b, and 10c). In that case, however, the resulting structure would have a small area. In contrast, the present claimed structure has no limitation resulting from the use of the formation of channels and diaphragms in a substrate that is monocrystalline in nature, allowing the channels and diaphragms to be formed of any desired dimension. Another approach would be to bond more substrates together, although the end result would not be a monocrystalline substrate. Thus, one of skill in the art would not look to the combination of the two Sparks references and the MacDonald patent or the combination of Sparks et al. and Mirza et al. to achieve the claimed monocrystalline structure.

Applicants further assert that it is improper to use a structure disclosed in an intermediate step in combination with other references to achieve the claimed combination.

More particularly, the Examiner is asserting that one of skill would find some teaching, suggestion or motivation in any one of the three references to stop the process in the Sparks et al. '069 patent and to modify the process as disclosed in the Sparks '121 and MacDonald patents to achieve a completely different end product than any one of these three references ever contemplated. There is no teaching, suggestion, or discussion in Sparks et al. that the intermediate structure shown in Figures 6, 7, and 10c was intended to be a final product as modified by Sparks '121 and MacDonald. Nowhere in Sparks et al. '069 is there any teaching or suggestion that the intermediate structure shown in Figures 6, 7, and 10c could or should be modified except as shown in this single reference.

A review of both the Sparks '121 and MacDonald secondary references finds absolutely no teaching or suggestion in these references for taking the small feature singled out in these references by the Examiner and applying it to any other process, much less to the Sparks et al. process to achieve the claimed structure. The Examiner cites column 5, lines 35-40 and column 2, lines 35-50 of Sparks et al. '069 and column 5, lines 15-25 of Sparks '121, describing that the substrate need to be "a suitable substrate," as an inherent "hint" that a monolithic substrate is somehow desirable. As discussed above, one would have to remove the N+ areas in order to achieve such a substrate, which is clearly not suggested or expected by Sparks et al. '069 much less the two secondary references.

The suggestion made by the Examiner in the first full paragraph on page 3 of the Office Action is driven by hindsight, impermissibly relying upon the teachings of the present application instead of on any suggestions or teachings in the references themselves. In order to cite all of the elements set forth in the claims, the Examiner refers to different figures of Sparks '121, which show structures at <u>different steps</u> so that the above combination set forth in the claims <u>is never present</u>.

Because the references, taken alone or in any combination thereof, fail to teach or suggest to one of ordinary skill how a monocrystalline substrate would be used in the Sparks '069 or Sparks '121 combined with the Sparks et al. '069 patents, applicants respectfully submit that all of the claims in this application are clearly allowable over the combination cited and relied upon by the Examiner.

Applicants respectfully adopt and incorporate herein by reference in their entirety the arguments previously submitted in the Amendment filed on October 19, 2007. The Examiner's reliance upon the MacDonald reference with respect to the monocrystalline structure is an inherent admission that neither Sparks et al. nor Sparks '121 teach or suggest this aspect of the present claimed combination. The reliance upon MacDonald to supply this missing element is insufficient to meet the claimed combination for the reasons discussed above. In addition, Mirza et al. fails to teach or suggest how the Sparks '121 reference would be modified by the teachings in Mirza et al. to achieve the claimed combination. In order to adopt the structure of Mirza et al. into Sparks et al. '121, one would have to modify the process of Sparks et al., and there is no teaching or suggestion in either Mirza et al. or Sparks et al. as to how this would be done.

In view of the foregoing, applicants respectfully submit that all of the claims in this application are clearly allowable over the combination of references cited and relied upon by the Examiner. In the event the Examiner disagrees or finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact applicants' undersigned representative by telephone at (206) 622-4900 in order to expeditiously resolve prosecution of this application. Consequently, early and favorable action allowing these claims and passing this case to issuance is respectfully solicited.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

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